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RESEARCH DATA MANAGEMENT AND REF2014

1. INTRODUCTION

1.1. BACKGROUND

The Research Excellence Framework (REF) 2014 will consist of three elements: Research Outputs, Impact, and Environment. This paper provides a brief overview of how research data and research data management can contribute to these three elements and how research data and their management are referenced in the REF2014 guidance documents. It has been prepared as part of the Research360 project funded by Jisc at the University of Bath.

It is being disseminated and shared with the research community in Bath and other universities. We hope it will be useful to researchers preparing REF submissions and for their institutions. Many universities are still in the process of enhancing and formalising strategies for research data management at this time, so this paper may contribute to planning for other future assessment exercises beyond REF2014, as well as business cases for further development of strategies and procedures for research data in research-intensive universities.

Please note specific guidance for the University of Bath on Research Impact and Research Environment statements have been redacted from this public version.

1.2. DEFINITIONS

The following definitions are used by the Research360 project:

Research data are the data, records, files or other evidence, irrespective of their content or form (e.g. in print, digital, physical or other forms), that comprise a research project's observations, findings or outcomes, including primary materials and analysed data.

Research data may be created directly by researchers or derived from third parties and enhanced by researchers in the course of their work.

Research data management includes the ways in which the data generated by and used for university research are created and captured, transferred, stored, organised, documented,

disseminated, reviewed, published, discovered, re-used, exploited, retained, archived or destroyed according to agreed policies and practice.

2. REF2014

REF2014 replaces the Research Assessment Exercise (RAE) with institutions making submissions by 29 November 2013. The results will be announced in 2014.

Quality-related (QR) funding for universities in 2012/13 was just over £1.3 billion. Within the dual support system for research, the research element of QR funding, is therefore one of the key funding streams for research in UK universities. The REF2014 results will determine institutional QR funding allocations until the next exercise, which may not be until 2020.

Hence the results have long term implications and anything institutions can do to maximise them is important. Support for the REF is therefore a potential element in any business case for research data management.

Guidance for the REF2014 is set out in two documents: the 'Guidance on submissions' (REF 02.2011) and 'Panel criteria and working methods' (REF 01.2012).

Explicit references to research data or research data management are limited within the REF guidance documents but are often implicit at a general level for research impact and the research environment. It is important to remember that research data management is a support activity enabling excellent research and it is the research activity itself and its impact that is the focus of the REF and the universities' submissions. However research data and research data management can often play an important role in this.

2.1. RESEARCH OUTPUTS

The Panels will assess the quality of submitted research outputs in terms of their 'originality, significance and rigour' with reference to international research quality standards. Research Outputs will carry a weighting of 65% of the overall outcome awarded.

An underpinning principle of the REF is that all forms of research output across all disciplines shall be assessed on a fair and equal basis (REF 01.2012, Part 1 para 40) so research data could be submitted as research outputs where relevant.

There are also special arrangements that can be made for the assessment of confidential or sensitive material.

In practice research data may not figure prominently in research output submissions in REF2014: partly due to still emerging practice and a possible uncertainty as to how the panels will assess them in reality; and perhaps also in some cases, despite special arrangements, data may be less easy to submit than other material due to sensitivity, confidentiality or the access required. However submissions should be considered where relevant research data have been a significant output from research.

Research data in various forms are specifically listed as an anticipated research output type by Panels A, C and D as follows:

Panel A (Clinical Medicine, Public Health, Health Professions, Biological Sciences, Agriculture, Veterinary and Food Science) expects research outputs may be published in formats including...

“other applied research outputs, including...images and devices; research derived from development, analysis and interpretation of bio-informatic databases; work published in non-print media” (REF 01.2012, p23, Part A2 para 27).

Panel C (Architecture, Planning, Geography, Environment, Archaeology, Economics, Business, Law, Politics, Social Work and Policy, Sociology, Anthropology, Education, Sport, Leisure and Tourism) expects to receive a wide range of outputs including...

“digital artefacts such as data sets, multi-use datasets, archives, software, film and other non-print media, web content such as interactive tools...Other paper-based outputs such as: ...primary data reports...” (REF 01.2012, p 65, Part 2C para 39).

Panel D (Area Studies, Modern languages, English, History, Classics, Philosophy, Theology, Art and Design, Music, Performing Arts, Communication and Media Studies, Library and Information Management) expects that outputs that embody research may include...

“electronic resources and publications...databases... the creation of archival or specialist collections to support the research infrastructure...” (REF 01.2012, p 85, Part 2D para 49).

All panels emphasise that examples of research outputs types are not limited to those listed, so any type of research data would also be valid as a submitted output.

2.2. RESEARCH IMPACT

Impact embraces the diverse ways in which knowledge and skills generated by research benefit individuals, organisations and communities. Government has made increasing requests for evidence to show the contribution that research makes to the economy, including impact on society and culture. As a consequence both HEFCE, through REF, and the Research Councils, through their award schemes, have initiated processes to document research impact and encourage research-led knowledge transfer beyond academia.

In REF2014, the sub-panels will assess the ‘reach and significance’ of impacts on the economy, society and/or culture that were underpinned by excellent research conducted in the submitted unit, as well as the submitted unit’s approach to enabling impact from its research. Research Impact will carry a weighting of 20% of the overall outcome awarded.

Not all impacts within the academic sector are excluded from REF2014: the guidelines note that:

“other impacts [than research] within the higher education sector, including on teaching or students, are included where they extend significantly beyond the submitting HEI” (REF 02.2011, p43 Para 143c).

Impact submissions have set templates and include an impact statement (REF3a template, REF 01.2012, p100, Annex B) and Impact case studies (REF3b template, REF 01.2012 Annex G – available on REF submission system).

For all REF panels, research data and its management have a potential contribution to make to section b (approach to impact) and section c (strategy and plans) in the impact statement template; and in sections 2 (underpinning research), section 4 (details of the impact), and section 5 (sources to corroborate the impact) of the impact case studies template.

As part of Research360 project at the University of Bath, we have developed a summary list of stakeholder benefits that can arise from research data management in research collaborations (Beagrie and Pink 2012). The lists of benefits for external stakeholders could

be used as a tool for identifying benefits from research data management in relevant research projects.

2.3. RESEARCH ENVIRONMENT

The Panels will assess the research environment in terms of its 'vitality and sustainability', including its contribution to the vitality and sustainability of the wider discipline or research base. Research Environment will carry a weighting of 15% of the overall outcome awarded.

The Research Environment has a template for submissions (template REF5, REF 01.2012 p101 Annex C).

Research data management may contribute to evidence and indicators in section b (research strategy) and section c (income, infrastructure, and facilities) of the Environment template.

3. BEYOND REF2014

Looking beyond REF2014 it is clear that the importance of impact and data in relation to research will almost certainly increase. Although Impact is only weighted at 20% of overall submissions in the REF2014 this is expected to increase in subsequent exercises.

Demonstrating impact is a long-term activity. It is therefore vital that researchers and their institutions are not only familiar with the impact requirements of REF2014, but also are thinking ahead for future assessment exercises on how to enhance and document impact over time from current research activities.

At the same time, we are also moving towards a more data-rich and data-intensive research environment in which open access publications are expected to be the norm and the data underpinning the articles are made available (RCUK 2012). Current indications are that for the next REF, submitted outputs will be required to comply with the same Open Access definitions as the current RCUK requirements.

Environment has been a significant element of the last three assessment exercises and it is reasonable to expect that evidence of institutional support for research data management will become an increasingly important part of this element.

Current work in institutions on developing data policies and infrastructure for research data management can play a significant part in this by supporting data sharing and long-term monitoring of access, use and impact.

4. REFERENCES

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REF 02.2011 *Assessment framework and guidance on submissions* (HEFCE July 2011).

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REF 01.2012 *Panel criteria and working methods* (HEFCE January 2012).

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